

**AMENDMENTS TO THE CLAIMS**

**Please cancel Claims 2, 8, and 14 without prejudice, as indicated below.**

**Please amend Claims 1, 3, 5, 11, 15, and 16 as indicated below.**

**Please add new Claims 24-31 as indicated below.**

A complete listing of all claims is presented below with insertions underlined (e.g., insertion), and deletions struckthrough or in double brackets (e.g., ~~deletion~~ or ~~[[deletion]]~~):

1. (Currently Amended) A method for enhancing neurologic function in a subject, said method comprising:

providing a subject having a loss of neurologic function due to Parkinson's disease or Alzheimer's disease; and

noninvasively delivering a neurologic function enhancing effective amount of light energy having a wavelength in the visible to near-infrared wavelength range and a predetermined power density to the brain of the subject, wherein noninvasively delivering the neurologic function enhancing effective amount of light energy comprises transmitting light energy through the scalp and the skull to the brain, wherein the predetermined power density is at least about 0.01 mW/cm<sup>2</sup> at a depth of approximately 2 centimeters below the dura.

2. (Cancelled)

3. (Currently Amended) A method according to Claim 1, ~~[[ or 2]]~~ wherein the predetermined power density is selected from the range of about 0.01 mW/cm<sup>2</sup> to about 100 mW/cm<sup>2</sup> at a depth of approximately 2 centimeters below the dura.

4. (Previously Presented) A method according to Claim 3 wherein the predetermined power density is selected from the range of about 0.01 mW/cm<sup>2</sup> to about 15 mW/cm<sup>2</sup> at a depth of approximately 2 centimeters below the dura.

5. (Currently Amended) A method according to Claim 1, ~~[[ or 2]]~~ wherein the light energy has a wavelength of about 630 nm to about 904 nm.

6. (Original) A method according to Claim 5 wherein the light energy has a wavelength of about 780 nm to about 840 nm.

7. (Previously Presented) A method according to Claim 1 wherein delivering a neurologic function enhancing effective amount of light energy to the brain comprises placing a light source in contact with a region of skin adjacent to the brain.

8. (Cancelled)

9. (Cancelled)

10. (Cancelled)

11. (Currently Amended) A method according to Claim 1,[[ or 2]] wherein delivering light energy comprises determining a surface power density of the light energy sufficient to deliver the predetermined power density of light energy to the brain.

12. (Previously Presented) A method according to Claim 11 wherein determining a surface power density of the light energy sufficient to deliver the predetermined power density of light energy to the brain comprises determining the surface power density of the light energy sufficient for the light energy to traverse the distance between the skin surface and the brain.

13. (Original) A method according to Claim 12 wherein determining the surface power density further comprises determining the surface power density sufficient to penetrate the skull.

14. (Cancelled)

15. (Currently Amended) A method according to Claim 1 [[ or 2]], wherein the treatment proceeds for a period of about 30 seconds to about 2 hours.

16. (Currently Amended) A method of increasing neurologic function by increasing the production of ATP by neurons, comprising:

noninvasively irradiating neurons of a subject having a loss of neurologic function due to Parkinson's disease or Alzheimer's disease with light energy having a wavelength in the near infrared to visible portion of the electromagnetic spectrum for at least about 1 second;

wherein the power density of said light energy at the neurons is at least about 0.01 mW/cm<sup>2</sup> at a depth of approximately 2 centimeters below the dura, whereby the ATP production of neurons is increased.

17. (Previously Presented) A method according to Claim 16 wherein the predetermined power density is selected from the range of about 0.01 mW/cm<sup>2</sup> to about 100 mW/cm<sup>2</sup> at a depth of approximately 2 centimeters below the dura.

18. (Previously Presented) A method according to Claim 17 wherein the predetermined power density is less than about  $15 \text{ mW/cm}^2$  at a depth of approximately 2 centimeters below the dura.

19. (Original) A method according to Claim 16 wherein the light energy has a wavelength of about 630 nm to about 904 nm.

20. (Original) A method according to Claim 19 wherein the light energy has a wavelength of about 780nm to about 840nm.

21. (Cancelled)

22. (Cancelled)

23. (Cancelled)

24. (New) A method for enhancing neurologic function in a subject, said method comprising:

noninvasively delivering a neurologic function enhancing effective amount of light energy through the scalp and the skull to the brain of a subject having a loss of neurologic function due to Parkinson's disease or Alzheimer's disease, the light energy having a wavelength in the visible to near-infrared wavelength range and a predetermined power density to the brain of at least about  $0.01 \text{ mW/cm}^2$  at a depth of approximately 2 centimeters below the dura.

25. (New) A method according to Claim 24, wherein the predetermined power density is selected from the range of about  $0.01 \text{ mW/cm}^2$  to about  $100 \text{ mW/cm}^2$  at a depth of approximately 2 centimeters below the dura.

26. (New) A method according to Claim 24, wherein the light energy has a wavelength of about 780 nm to about 840 nm.

28. (New) A method according to Claim 24, wherein noninvasively delivering a neurologic function enhancing effective amount of light energy comprises placing a light source in contact with a region of skin adjacent to the brain.

29. (New) A method according to Claim 24, wherein the light energy is pulsed.

30. (New) A method according to Claim 1, wherein the light energy is pulsed.

31. (New) A method according to Claim 16, wherein the light energy is pulsed.